



**CITY OF NEWPORT BEACH**  
**COMMUNITY DEVELOPMENT DEPARTMENT**  
**BUILDING DIVISION**

100 Civic Center Drive | P.O. Box 1768 | Newport Beach, CA 92658-8915  
[www.newportbeachca.gov](http://www.newportbeachca.gov) | (949) 644-3200

**RESIDENTIAL**  
**PLAN REVIEW COMMENTS**

Project Description: New 2,197 SF two story house with 449 SF attached garage, 359 SF third floor open to sky deck with 582 SF covered decks on both 2<sup>nd</sup> & 3<sup>rd</sup> floors.

**Project Address:** 308 Grand Canal **Plan Check No.:** 1490-2014

Permit App. Date: June 26, 2014 Plan Check. Expires: 1/23/2014

Use: SFR Occupancy: R3 / U Const. Type: V – B SPR

No. Stories: Three Permit Valuation: \$425,000 Adjusted Valuation:

Architect/Engineer: Christian Light / Qiang Xiao Phone: (949) 851-8345  
(714) 662-0510

Applicant/Contact: Nolan Mead Phone: (949) 851-8345

**Plan Check Engineer:** Ali Naji **Phone:** (949) 644-3292

**Engineer email:**

<div>X</div>	1 <sup>st</sup> Review: 8/21/2014	<div>X</div>	2 <sup>nd</sup> Review: 2/20/2015	<div>X</div>	3 <sup>rd</sup> Review: 6/2/2015 (Arch&Grad Reck only)
			<i>Italic comments</i>		

**The project plans were reviewed for compliance with the following codes and standards:**

2013 CRC; 2013 CBC; 2013 CPC; 2013 CEC; 2013 CMC; 2008 Building Energy Efficiency Standards (BEES); 2013 California Green Building Standards Code (CG); & Chapter 15 of the Newport Beach Municipal Code (NBMC).

**The code section references are from the 2013 CRC, unless otherwise stated.**

- **TO EXPEDITE PROJECT APPROVAL: Please provide a comment response sheet, indicating how and where each comment was resolved on the plans.**
- Resubmit all previously reviewed plans, updated plans and supporting documents with each subsequent review.
- **AFTER 2<sup>nd</sup> PLAN REVIEW:** Please call the plan check engineer listed above to schedule a plan review appointment, to expedite project approval.
- For clarification of any plan review comment, please call the plan check engineer listed above.
- Plan review status is available online at [www.newportbeachca.gov](http://www.newportbeachca.gov). Project status is also available using the interactive voice response system at 949-644-3255, or by speaking with a permit technician at 949-644-3288 during business hours.

## GENERAL

1. Obtain plan review approval from the following:
  - a. Building Division
  - b. Planning Division
  - c. Public Works Department
2. Resolve pending grading comments listed on the attached comment sheet.  
**➔2<sup>ND</sup> Check:** *Comments till not resolved.*  
**➔3<sup>RD</sup> Check:** *Comment still not resolved.*
3. ~~Revise the building type of construction and occupancy classification as listed above on the comment sheet.~~
4. ~~Revise the sheet index to include all the sheets that are part of the set.~~  
**➔2<sup>ND</sup> Check:** ~~*T 24 sheets as included in the set are eligible when scanned to be kept as part of the public records. Please redistribute energy forms on two sheets, as originally submitted, in lieu of Combining all on one sheet.*~~
5. ~~Revise project data to list the areas for all floors including third floor and the open to sky deck area. Provide overlay sheets to document each floor areas.~~
6. ~~Revise the site plan to clearly show set back dimension from property line. Revise to identify existing and proposed walls and gates. Clarify if existing walls are just masonry fences or retaining walls.~~  
**➔2<sup>ND</sup> Check:** ~~*Comments still not resolved. Plans are not coordinated with grading plan. Revise to identify existing and proposed fences and retaining walls. Grading plan indicates on cross section A A to “verify in the field and to replace if necessary”, that decision is required to be made now during plan check period and prior to permit issuance. Please note that Proposed finish elevation of the new house is higher than removed house which would result in walls that retain higher level of finished side yard. Revise accordingly.*~~  
**➔3<sup>RD</sup> Check:** *Comment still not resolved.*
7. ~~No part of the structure shall project passed the property lines. Revise sheet A3, roof deck floor plan, and sheet A4, roof plan, elevations and foundation plan accordingly. See red marked plans.~~  
**➔2<sup>ND</sup> Check:** *Correction still not resolved.*  
**➔3<sup>RD</sup> Check:** *Revise to dimension the encroachment on cross sections. Encroachment shall comply with section 3202.3.2 of CBC 2013.*
8. ~~Remove air condition equipment specification and noise analysis from sheet A5. Air conditioning permit shall be obtained under separate plan check and permit.~~
9. ~~Revise plans to dimension proposed spa. Provide and reference spa anchorage details.~~  
**➔2<sup>ND</sup> Check:** *Comment still not resolved. Response “See structural details” wasn’t sufficient. There weren’t any details referenced on framing plans. Revise accordingly.*  
**➔3<sup>RD</sup> Check:** *Revise the title sheet to show that “Spa and anchorage details shall be deferred submittal”.*
10. Many architectural and structural details are either missing, miss referenced or incorrect. See red marked plans and revise accordingly. Revise to include and reference complete set of construction details.  
**➔2<sup>ND</sup> Check:** *Comments till not resolved. See red marks on the set. Please let me know if you have any questions or if any comment is unclear, would appreciate your help to resolve pending comments in order to expedite permit issuance.*  
**➔3<sup>RD</sup> Check:** *Resolve pending red marks on plans.*

11. Structural plans as submitted are incomplete and missing essential information required to do a complete plan review. Engineer of record is required to complete the design and details prior to returning back for a recheck. More comment may follow once a complete set is submitted.

**➔2<sup>ND</sup> Check:** *Comment still not resolved.*

**➔3<sup>RD</sup> Check:** *Comment still not resolved.*

12. Final drawings which will be approved for permit issuance, shall be signed by the respective design professional (electronic signature is acceptable).

**➔2<sup>ND</sup> Check:** *Comment will be signed off when all of the other comments are resolved.*

**➔3<sup>RD</sup> Check:** *Comment still not resolved.*

*HFX plans and calculations shall be stamped and signed by the house design engineer in addition to HFX engineer of record.*

13. In order to expedite permit issuance, recheck will be done in person. Please call me to setup a recheck appointment.

### **MEANS OF EGRESS**

14. ~~Landings or floors at the required egress door shall not be more than 1 ½ inches lower than the top of the threshold. The exterior landing or floor shall not be more than 7 ¾ inches below the top of the threshold provided the door does not swing over the lower landing or floor. R311.3.1~~

~~Revise to show landings at doors comply with this requirement. Revise grading plan to specify landings at doors.~~

15. ~~Revise entry floor plan to add handrail at the entry steps per section R311.7.8 of CRC 2013.~~

16. ~~Provide section and details of interior stairway showing:~~

- ~~a. Maximum rise of 7.75 inches and minimum run (tread) of 10 inches. R311.7.4~~
- ~~b. Provide a nosing between 0.75" and 1.25" on stairways with solid risers where tread depth is less than 11". R311.7.4.3 and exception 1~~
- ~~c. Minimum width of 36 inches. R311.7.1~~
- ~~d. Minimum headroom of 6 ft. 8 inches. R311.7.2~~

17. Winder treads:

- ~~a. Shall have a minimum tread depth of 10 inches at a point 12 inches from the narrow side. R311.7.4.2~~
- b. Shall have a minimum tread depth of 6 inches at any point within the clear width of the stair.

**➔2<sup>ND</sup> Check:** *Comment still not resolved.*

**➔3<sup>RD</sup> Check:** *Comment still not resolved. Stairs as shown do not comply with section R311.7.5.2.1 of CRC 2013. Revise accordingly.*

18. Handrails shall satisfy the following:

- ~~a. Provide a minimum of one continuous handrail on stairways with 4 or more risers and at all open sides. R311.7.7~~
- b. Handrail height shall be 34 to 38 inches above the nosing of treads. R311.7.7.1.
- c. Handrail with circular cross-sections shall have a diameter of 1.25 to 2 inches. R311.7.7.3 item 1.
- d. Handrails with other than circular cross-sections shall have a perimeter dimension of 4 to 6.25 inches with a maximum cross-section of 2.25 inches. R311.7.7.3 item 1
- e. Handrails with a perimeter greater than 6.25 inches shall comply with R311.7.7.3 item 2.
- f. Handrail shall be continuous without interruption by newel post or other obstruction, except at the landing, volute, or turnout on lowest tread. R311.7.7.2, exception 1 & 2.

g. Clear space between handrail and wall shall be 1.5 inches minimum. R311.7.7.2.

~~→2<sup>ND</sup> Check:~~ *Comment still not resolved. See above for missing information and provide details accordingly. Response of "OK" is not sufficient. Please provide detailed response to clarify how compliance is achieved.*

~~→3<sup>RD</sup> Check:~~ *Revise provided detail to show a maximum cross section of 2.25 as detailed above.*

19. ~~Guards (guardrails) shall meet the following:~~

a. ~~Guard height shall be a minimum of 42 inches. R312.2~~

b. ~~Openings between intermediate balusters shall preclude the passage of a 4 inch diameter sphere. R312.3~~

c. ~~The triangular openings formed by the riser, tread and bottom rail shall preclude the passage of a 6 inch diameter sphere. R312.3 exception 1.~~

d. ~~Openings between intermediate balusters on the open side of stairs shall preclude the passage of a 4 3/8 inches diameter sphere. 312.3 exception 2.~~

~~→2<sup>ND</sup> Check:~~ *Comments still not resolved. Response of "OK" is not sufficient. Please provide detailed response to clarify how compliance is achieved.*

20. Provide a connection detail for each type of the guardrails that are shown on elevations and floor plans. Guardrail to withstand a 200 lb force at top of the railing acting in any direction, and min 50 lb for intermediate guard components. The loads are not required to be cumulative.

Provide calculations to justify connection detail.

~~→2<sup>ND</sup> Check:~~ *Comments still not resolved. Response of "See structural" is not sufficient. Please provide detailed response to clarify how compliance is achieved.*

~~→3<sup>RD</sup> Check:~~ *Comment still not resolved.*

## **CONSTRUCTION**

21. Provide stairs construction details. Include as part of structural plans. Provide calculations to justify framing and connections.

~~→2<sup>ND</sup> Check:~~ *Comments still not resolved.*

~~→3<sup>RD</sup> Check:~~ *Revise to add supporting posts as discussed in the meeting.*

22. ~~Revise window and door schedules to indicate tempered glass as red marked.~~

23. Provide elevator shaft construction details. Provide and reference once-hour fire-resistance rated wall construction details. Include complete construction description, per listing, on plans.

~~→2<sup>ND</sup> Check:~~ *Comments still not resolved. Provide details as requested above.*

~~→3<sup>RD</sup> Check:~~ *Comment still not resolved.*

24. ~~Exterior wall construction details show plaster finish while house elevations indicate different finish material. Revise accordingly. Details to specify thickness of finishes beyond exterior face of footing. Revise foundation and grading plans to show dimensions to footings as marked on plans.~~

~~→2<sup>ND</sup> Check:~~ *Comments still not resolved. See red marks on elevations.*

~~→3<sup>RD</sup> Check:~~ *Comment still not resolved.*

25. ~~Show attic ventilation type, size and location. Vents shall meet the following requirements. R806.2~~

a. ~~Openings shall be placed so as to provide cross ventilation of the attic space # 2.~~

b. ~~Where the ratio of 1/300 is used to vent the attics, show that not less than 40% but not more than 50 % of the vents shall be located not more than 3 ft below the ridge. Revise roof plan to dimension location and to specify size of vents.~~

~~→2<sup>ND</sup> Check:~~ *Revise as red marked.*

26. ~~Roof notes, on sheet A4, are confusing and contradict each other. Revise to specify type of roofing material, weight and a current ICC ES report number. Note that class "A" roofing is required. Verify that proposed roofing material is listed for 3:12 roof slope. Revise detail 2/D2 accordingly.~~  
~~→2<sup>ND</sup> Check: Comment still not resolved. See above for complete requirements. Plan notes still generic.~~  
~~→3<sup>RD</sup> Check: Comment still not resolved. Provide an ICC ES report for the proposed tiles and specify weight of the tile on the roof plan. Please note that roof tile adhesive report is listed for clay and concrete tiles only.~~
27. ~~Revise roof plan to show class "A" finish material. Revise detail 14/D-1 to specify type and weight of finish material in lieu of "deck paving per owner". Revise detail 10/D2 accordingly.~~  
~~→2<sup>ND</sup> Check: Please clarify type of moisture barrier to be used. This item shall not be left to the contractor to decide. Revise detail to specify listing report number and provide a copy for review.~~
28. ~~Provide roof drains and overflow details and reference on plans. Overflow to be piped separately. R903.4.1~~
29. The following construction components/materials are not included in the California Building Code. Specify the listing/labeling agency and listing number for fire places as shown on both floors and roof deck. Listing agency to be ANSI accredited for type of listing.  
~~→2<sup>ND</sup> Check: Comments still not resolved. Specify type, model and ICC ES report number for each one of the fire places insulated in each floor. Provide and reference construction details for each floor per listing of the fire place. More comments may follow.~~  
~~→3<sup>RD</sup> Check: Comment still not resolved. Revise plans to add first and second floor construction details. Provide anchorage details with calculations.~~
30. ~~Revise details to specify thickness and weight of adhered and veneer.~~

## **GARAGE AND CARPORT**

31. ~~Revise door schedule to show "L" is self-closing and self-latching door. R302.5.1~~

## **VENEER / FIREPLACE**

32. ~~Details 5 & 13/D1 indicate two different thickness and installation details. Specify ICC ES report number for the veneer material. Specify thickness and weight and show support over openings. R703.7. Revise details accordingly.~~  
~~→2<sup>ND</sup> Check: comment still not resolved. Provide a copy of the ICC ES report for review and comments.~~  
~~→3<sup>RD</sup> Check: Comment still not resolved. Provide a copy of ICC ES report for review & comments.~~
33. ~~Exterior stone in seismic design category D (D2) shall not exceed the limits of Table 703.7.(2) and shall not exceed 4 inches thick.~~

## **MECHANICAL, PLUMBING & ELECTRICAL**

34. ~~Provide heating facilities per CRC R303.9. Show location of FAU.~~  
~~→2<sup>ND</sup> Check: Comment still not resolved. Revise floor plans to show location of FAU. Please note that cross section A/A7 shows FAU installed where attic access opening is located. Revise accordingly.~~
35. ~~Show location of electrical panel on plans. Electrical panels are not permitted in closets, bathrooms, and pantries.~~
36. ~~All plumbing fixtures shall be complying with the maximum flow rates as noted in the residential construction minimum requirements.~~  
~~→2<sup>ND</sup> Check: Clarify how comment was resolved. Response sheet shows "OK".~~

## **ENERGY EFFICIENCY**

37. ~~CF-1R form is to be signed by designer or owner, and documentation author.~~  
~~→2<sup>ND</sup> Check: Comment will be signed off when all of the other comments are resolved.~~
38. Total condition area, slab on grade and raised floor areas, as entered in energy calculations, don't match architectural plans. Revise accordingly.  
~~→2<sup>ND</sup> Check: Comment still not resolved. Scanned energy calculations, as submitted, are illegible. No review is done at this time. Provide same quality as first submittal.~~  
~~→3<sup>RD</sup> Check: Coordination of items listed above is still required. Revise accordingly.~~
39. West direction fenestration area is not correct as entered in energy calculations. Revise accordingly. Provide an itemized list of all fenestrations in energy documentation. Identify exterior doors and windows with method similar to window schedules. Other directions will be verified once returned for a recheck. More comments may follow.  
~~→2<sup>ND</sup> Check: Comment still not resolved. No review is done because scanned calculation sheet is illegible.~~  
~~→3<sup>RD</sup> Check: Comment still not resolved.~~
40. ~~Specify U factors and Solar Heat Gain Coefficient (SHGC) values for all fenestrations on window and door schedules. Add note to schedules, "Fenestrations must have temporary and permanent labels."~~  
~~→2<sup>ND</sup> Check: Comment still not resolved. No response was provided.~~
41. Provide whole-building mechanical ventilation. Revise legend to identify and specify capacity. ~~Include ventilation system sizing calculations on the plans. Whole building ventilation shall be provided by exhaust air, supply air or combined exhaust and supply air system. Natural ventilation through doors and windows is not an acceptable in lieu of providing whole building ventilation. BEES 150(e), Exc. 5 to 152(a) & ASHRAE Std. 62.2~~  
a. ~~Min. required rate of ventilation (cfm) = 1 cfm per 100 sf of floor area + 7.5 cfm per occupant~~  
b. ~~Number of occupants = number of bedrooms + 1~~  
~~→2<sup>ND</sup> Check: Revise symbols legend to include whole building fan as requested above.~~  
~~→3<sup>RD</sup> Check: Comments still not resolved.~~
42. ~~In kitchen specify the local exhaust system vented to outdoors shall have a minimum exhaust rate of 100 cfm. BEES 150(e), Exc. 5 to 152(a) & ASHRAE Std. 62.2~~
43. ~~Revise lighting plans to comply with City's CAL GREEN RESIDENTIAL MANDATORY REQUIREMENTS for permanently installed lightings. (NBMC 15.11.010).~~

## **ADDITIONAL REGULATIONS**

44. ~~Revise building data on cover sheet to indentify that building is equipped with fire sprinkler system in accordance with NFPA 13D.~~
45. ~~List all deferred submittals on cover sheet and write a note: "Deferred submittals to be reviewed by project architect or engineer of record and certified prior to submittal for plan check or approval by the City."~~

## **FLOOD HAZARD ZONE**

46. ~~Building site is located in a special flood hazard zone. Top of slab or first floor over crawl space to be at or above elevation: 9.0 MSL (North American Vertical Datum (NAVD) 88). Revise plans to indicate the same. NBMC 15.50.200(c).~~
47. Parking garage: Building access or storage may be located below the base flood elevation (BFE) provided the floor elevation is above adjacent grade. Provide two openings, bottom of openings to be within 1 foot from grade and below the top of concrete curb supporting the sill plate. Provide one inch square of opening per square foot of floor area. NBMC 15.50.200(d).

**→2<sup>ND</sup> Check:** *Comment still not resolved. Revise architectural plans including elevations to show a minimum of two openings as discussed above. Revise foundation plan to show locations and dimensions of proposed openings. Please note that openings may be equipped with screens, louvers, valves or other coverings or devices; provided that they permit the automatic entry and exit of floodwater.*

**→3<sup>RD</sup> Check:** *Comment still not resolved.*

48. Where top of garage floor slab is lower than the base flood elevation (BFE), garage walls are to be supported over concrete curb with top of curb  $\geq$  9.0 NAVD.

Provide architectural and structural details.

**→2<sup>ND</sup> Check:** *Comment still not resolved.*

**→3<sup>RD</sup> Check:** *Comment still not resolved.*

49. ~~A licensed surveyor shall complete FEMA elevation certificate and submit it to Building Department Inspector during final inspection. (Show note on plans.)~~

50. All mechanical and electrical equipment, including ducts to be at or above base flood elevation of 9.0 msl. (NAVD 88).

**→2<sup>ND</sup> Check:** *Add a note and reference on the garage floor plan.*

**→3<sup>RD</sup> Check:** *Add requested note above. Provide a cross section through the wine storage area and specify finish floor elevation. E-mail me the cross section prior to coming in for a recheck, in order to verify compliance with flood zone requirements.*

## **STRUCTURAL**

51. ~~Revise calculation package to include a sheet index. Specify contents and number of sheets for each section of calculations.~~

52. ~~Provide a floor key plan showing dead load calculation for each area of the floor plan. Revise garage area to include two layers of 5/8 type X gypsum board and to include correct thickness of Gyp-Crete per architectural details.~~

**→2<sup>ND</sup> Check:** *Revise to specify design loads that show 1½" Gyp-Crete, 11/8" T&G sheathing and two layers of Gypsum Board to agree with architectural plans.*

*Revise lateral forces analysis to use revised design loads. This may affect types of shear walls, holdowns...etc. Further review may trigger more comments.*

53. Revise framing plans to add grid line to facilitate plan check process and expedite permit issuance.

**→2<sup>ND</sup> Check:** *Comment still not resolved. Revise roof framing plan to show grid lines similar to floor plans.*

54. ~~Roof plan indicates roof tiles and not thin slates as listed in calculations. Revise to specify the same and include any changes of assumed roof dead loads.~~

55. ~~Number all beams on framing plans.~~ Provide calculations for all beams including valley beams. See red marked plans.

**→2<sup>ND</sup> Check:** *Revisit all beam calculations to ensure all loads are being transferred properly to the foundation.*

*For example FB-3F, uniform loads from adjacent floor and wall framing were not included in the calculations. Similarly, FAU weight was not included in any of the floor beams calculations.*

*Calculations for random beams will be reviewed again when plans are returned for a recheck.*

56. ~~Length of ridge beam RB-1 is 24' per architectural plans. Revise beams' calculations accordingly.~~

57. ~~Calculations for HDR-3 are not clear whether loads from valley beams were included or not. Please provide detailed response and revise calculations accordingly.~~

58. ~~Roof beam RB-2 calculations shows a different configuration than what is on framing plan. Clarify.~~
59. Beam FB-3 is supported by un-numbered beam that is supported by FB-5. Revise calculations for FB-5 to clarify loadings including reaction from shear wall above.  
**→2<sup>ND</sup> Check:** *Response is not clear. Comment still not resolved.*
60. ~~Load used in design of beam RB-3 doesn't match reaction from RB-2. Please clarify.~~
61. Beam FB-9 calculations is not adequate as indicated in the software printout. Justify loads used in calculations and revise accordingly.  
**→2<sup>ND</sup> Check:** *Comment still not resolved. Justify loads used as requested above. Provide a detailed lists of loads used on beam FB-8 & FB-9. Provide two separate set of calculations, without and then with seismic reactions.*
62. Provide calculations to justify number and size of bolts used to support beam # FB-08 as shown in detail # 14/SD-5.  
**→2<sup>ND</sup> Check:** *Comment still not resolved.*
63. ~~Provide design criteria on the plans to show, the risk category, the wind load based on 110 mph, specify seismic force resisting system and associated R and  $\Omega$  values. ASCE 7-10, table 1.5-1 and Table 12.2-1.~~
64. ~~Submit mapped accelerations parameters  $S_s$  and  $S_1$  and other seismic design parameters using USGS website at <http://earthquake.usgs.gov/designmaps> or through SEI web site <http://content.seinstitute.org>~~
65. ~~Include the vertical seismic load effects  $E_v = 0.2S_{ds} \times DL$  (strength level) and  $E_v = 0.14S_{ds} \times DL$  (ASD level) as required per ASCE 7-10 section 12.4.2.2~~
66. ~~Specify live loads used in the design for roof and floor loads. Deflection criteria shall be per Table R301.7.~~
67. ~~Provide a written statement of required special inspections per Section 1704.3.1. Provide required verification and inspections per section 1705. Include details of special inspection requirements for hardy frames prefabricated shear walls.~~

## **FRAMING**

68. ~~Revise roof framing plan to show locations of attic vents. Provide and reference construction details.~~
69. ~~Revise sheet roof deck & floor framing to show attic floor joists.~~
70. Back-to-back HFX shear walls are not part of the ICC ES report. Referenced details shall not be used without complete calculations.  
**→2<sup>ND</sup> Check:** *Clarify where in calculations, that two anchor bolts uplift forces are used simultaneously, to verify concrete breakout and concrete side-face blowout are still adequate.*  
*Please note that provided calculation is for HFX installed on a stem wall while plans and details show direct interior slab condition without a stem wall. Revise accordingly.*
71. HFX shear wall height along, red marked, grid line # 3 is taller that the bottom of the beam as shown in architectural plans. Revisit all HFX shear walls and revise accordingly.  
**→2<sup>ND</sup> Check:** *Comment still not resolved. Please revisit all hardy frame shear walls and coordinate with architectural plans. For example garage HFX shear wall along grid line # 5 need t show HFX installed on concrete curb to agree with architectural plans. Revise accordingly.*
72. Revise framing plans to provide and reference HFX drag details. Please note that detail 2/HFX2 referenced on back-to-back shear wall is incorrect. See red marked plans for other missing information.  
**→2<sup>ND</sup> Check:** *Comment still not resolved. See red marked roof and floor, deck framing plans.*



73. All of the listed discrepancies, under **STRUCTURAL** above, in addition to many missing roof construction details make plan review unproductive and incomplete.

Review of completed framing plans and calculations will be done in person with the design engineer. More comments may result during the meeting that will need to be addressed by the engineer.

**➡2<sup>ND</sup> Check:** *Note that meeting above is requested to reduce number of resubmittal and expedite permit issuance. Please plan on attending the recheck meeting. Call ahead of time to schedule recheck appointment.*

## **LATERAL**

74. ~~Revise calculations to include Determine mapped MCE spectral response acceleration parameters at short periods  $S_s$  and at a one second period  $S_1$  in accordance with ASCE 7-10 Section 11.4.1.~~
75. ~~For shear walls resisting seismic forces and not meeting the aspect ratio of 2:1 shall have the unit shear capacity reduced by 2bs/h. SDPWS TABLE 4.3.4 footnote 1~~
76. ~~For shear walls with openings design the force transfer around the openings per R602.10 / R301.1 and CBC 2305 / AF&PA SDPWS-2008.~~
77. ~~Walls or columns participating in resisting seismic forces in two orthogonal directions shall be designed to resist 100 % in one direction plus 30% in the other direction.~~
78. Provide details for transfer of shear wall holdown forces to foundation for shear walls above first floor.

**➡2<sup>ND</sup> Check:** *Comment still not resolved. Details are missing from plans. I red marked a couple of typical locations for reference.*

Complete review of item above will be done in person with the engineer of record.

79. ~~Holdowns are required for all shear walls with not uplift forces. Use applicable ASCE 7-10 SECTION 12.4.2.1 FACTORS FOR DL for earthquake and 0.9DL (strength level) 0.6 DL (ASD LEVEL) for wind for calculation of forces resisting shear wall overturning.~~
80. Provide grade beam design for continuous footings supporting lateral force resisting elements.
- ➡2<sup>ND</sup> Check:** *Comment still not resolved. Revise calculations per revised dead loads, as discussed in comment # 52 above.*
81. Design structural elements for support of discontinuous lateral force resisting elements using overstrength  $\Omega$  factor 2.5 in accordance with ASCE 7-10, Section 12.3.3.3. Reactions at ends of structural elements are required to be transferred to foundation, or until there are no net reactions. Provide details of all connections.

**➡2<sup>ND</sup> Check:** *Revisit FB-5, Enercalc indicates "Design N.G.". Revise calculations accordingly.*

82. Provide design/analysis of horizontal diaphragms, chords and chord splices.
- a. Provide design of drag/struts and drag/strut connections. Include calculations for required diaphragm nailing at drag/struts (2 rows diaphragm BN will be required if diaphragms on each side of drag/strut are loaded to capacity).
- b. Identify drag/struts on plans and specify drag/strut nailing.

**➡2<sup>ND</sup> Check:** *Comment still not resolved. Provide drag details as requested above with a detailed response.*

## **FOUNDATION**

83. ~~Revise foundation plan to include legible UFER detail. HFX information is illegible on the upper left hand side corner of the plan.~~
84. Revise HFX standard plans to identify applicable anchorage requirements. Please use thick font lines to box out applicable details. Only ICC ES report listed details shall be referenced on plan. Other details required calculations.

**➡2<sup>ND</sup> Check:** *Comment still not resolved.*

85. Provide back-to-back HFX anchorage design based on ACI 318-11 Appendix "D". Calculations to include all modes of tension and shear failures.  
**➔2<sup>ND</sup> Check:** *Calculations provided is for HFX installed on a stem wall while plans and details show direct interior slab condition without a stem wall. Depth of grade beam doesn't meet minimum requirements per Hardy Frame Standard detail 3C/HFX1. Revise plans and calculations accordingly.*  
*Revise Hardy Frame calculations to for footing with concrete stem wall*
86. Provide calculations for check overturning moment capacity of grade beams. Check for load reversal and revise reinforcement bars accordingly.  
**➔2<sup>ND</sup> Check:** *Comment still not resolved.*
87. Provide calculations for HFX footings to show soil bearing pressure still adequate under moment and bearing.  
**➔2<sup>ND</sup> Check:** *Comment still not resolved.*
- ~~88. Revise foundation plan to indicate same requirement for slab on grade. See red marked foundation note # 18. Provide slab on grade detail.~~
- ~~89. Revise foundation plan to show and specify dimensions of all footings to property lines. Footings shall not pass across property lines. Footings are shown encroaching into the public right-of-way. Revise accordingly.~~
- ~~90. New slab on grade shall install a Capillary Break in compliance with one of the following (CG 4.505.2.1):~~  
~~a. A 2-inch thick layer of sand over a 16 Mil vapor barrier meeting ASTM 1745 (15MIL) over 2 inches of sand, over a 4-inch thick base of ½ inch or larger clean aggregate.~~  
~~Revise plans accordingly.~~
- ~~91. Foundations and floor slabs for buildings located in expansive soils shall be designed in accordance with CBC section 1808.6~~

#### **ADDITIONAL CORRECTIONS**

- ~~92. Both BBQs on the roof deck and in the entry level covered patio area are not permitted to be located under overhead combustible construction. Revise plans accordingly.~~